

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office						Atty. Docket No. 48557-A/JPW/ADM	Serial No. 09/1798,446 Not Yet Known		
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)								Applicant: Catherine Dulac and Richard Axel			
								Filing Date: Herewith	Group Art Unit 1646		
U.S. PATENT DOCUMENTS											
Examiner Initial		Document Number			Date	Name	Class	Subclass	Filing Date if Appropriate		
MOP		5	2	7	8	1	4	1	January 11, 1994	Berliner	PTO 60
MOP		5	5	0	8	1	6	4	April 16, 1996	Kausch et al.	U.S. 4/16/96
MOP		5	5	7	6	2	1	0	November 19, 1996	Sledziewski et al.	U.S. 11/19/96
FOREIGN PATENT DOCUMENTS											
		Document Number			Date	Country	Class	Subclass	Translation		
									Yes No		
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)											
MOP		Bakalyar, H.A. and Reed R.R., (1990) "Identification of a specialized adenylyl cyclase that may mediate odorant detection", <u>Science</u> 250:1403-1406;									
↑		Baldwin, J.M., (1993) "The probable arrangement of the helices in G protein-coupled receptors", <u>The EMBO Journal</u> 12:1693-1703;									
		Bean, N.J., (1982) "Modulation of agonistic behavior by the dual olfactory system in male mice", <u>Physiol. Behav.</u> 29:433-437;									
		Ben Arie, N., et al., (1994) "Olfactory receptor gene cluster on human chromosome 17: Possible duplication of an ancestral receptor repertoire", <u>Hum. Mol. Gen.</u> 3:229-235;									
		Bertmar, G., (1981) "Evolution of vomeronasal organs in vertebrates", <u>Evolution</u> 35:359-366;									
↓		Brady, G., et al., (1990) "Representative <u>in vitro</u> cDNA amplification from individual hemopoietic cells and colonies", <u>Methods in Mo. Cell. Biol.</u> 2:17-25;									
MOP		Broadwell, R.D., (1975) "Olfactory relationships of the Telencephalon and Diencephalon in the rabbit. I. An autoradiographic study of the efferent connections of the main and accessory olfactory bulbs", <u>J. Comp. Neurol.</u> 163:329-346;									
EXAMINER	MICHAEL PARK		DATE CONSIDERED			11/14/03					
<p>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>											

Form PTO-1449
(REV. 8-83)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEINFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

Atty. Docket No. 48557-A/JPW/ADM	U.S. Serial No. Not Yet Known
Applicant: Catherine Dulac and Richard Axel	09/698,416
Filing Date Herewith	Group Art Unit 1646

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

✓ MOP	Buck, L. and Axel, R., (1991) "A novel multigene family may encode odorant receptors: A molecular basis for odor recognition", <u>Cell</u> 65:175-187;
✓	Chess, A., (1994) "Allelic inactivation regulates olfactory receptor gene expression", <u>Cell</u> 78:823-834;
	Clancy, A.N., Coquelin, A., Macredio, F., Gorsik, R.A., and Nobel, E.P., (1984) "Sexual Behavior and Aggression in Male Mice involvement of the Vomeronasal System", <u>J. Neurosci.</u> 4:2222-2229;
	Dhallan, R.S., et al., (1990) "Primary structure and functional expression of a cyclic nucleotide-activated channel from olfactory neurons", <u>Nature</u> 347:184-187;
	Dulac, C. and Axel, R., (1995) "A novel family of genes encoding putative pheromone receptors in mammals", <u>Cell</u> 83:195-206;
	Eisthen, H.L., (1992) "Phylogeny of the vomeronasal system and of receptor cell types in the olfactory and vomeronasal epithelia of vertebrates", <u>Micro. Res. Tech.</u> 23:1-21;
	Farbman, A.I., (1992) "Cell biology of olfaction", <u>Developmental and Cell Biology Series</u> (Cambridge University Press, Canada) pp. 1-23, 118-129, 207-214;
	Garcia-Velasco, J. And Mondragon, M., (1991) "The incidence of the vomeronasal organ in 1000 human subjects and its possible clinical significance", <u>J. Steroid Biochem. Molec. Biol.</u> 39:561-563;
	Halpern, M., (1987) "The Organization and Function of the Vomeronasal System", <u>Ann. Rev. Neurosci.</u> 10:325-362;
	Halpern, M., et al., (1995) "Differential localization of G proteins in the opossum vomeronasal system", <u>Brain Research</u> 677: 157-161;
	Henzel, W.J., et al., (1988) "The primary structure of aphrodisin", <u>J. Biol. Chem.</u> 263:16682-16687;
✓ MOP	Imamura, K., et al., (1992) "Coding of odor molecules by mitral/tufted cells in rabbit olfactory bulb. I. Aliphatic compounds", <u>J. Neurophysiol.</u> 68:1986-2002;
MOP	Johns, M.A., Feder, H.H. Komisaruk, B.R., and Mayer, A.D., (1978) "Urine induced reflex ovulation in anovulatory rats may be a vomeronasal effect", <u>Nature</u> 272: 446-448;

EXAMINER <u>Michael Park</u>	DATE CONSIDERED <u>11/14/03</u>
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Form PTO-1449
(REV. 8-83)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEINFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

Atty. Docket No. 575/48557-A/JPW/ADM	U.S. Serial No. Not Yet Known
Applicant: Catherine Dulac and Richard Axel	
Filing Date Herewith	Group Art Unit 1646

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

MP	Jones, D.T. and Reed, R.R., (1989) "Go _{lf} : An Olfactory neuron specific G-protein involved in odorant signal transduction", <u>Science</u> 244:790-795;
↑	Katoh, K., (1993) "Coding of odor molecules by mitral/tufted cells in rabbit olfactory bulb. II. Aromatic compounds", <u>J. Neurophysiol.</u> 70:2161-2175;
	Kauer, J.S., et al., (1987) "Odor-elicited activity monitored simultaneously from 124 regions of the salamander olfactory bulb using a voltage-sensitive dye", <u>Brain Res.</u> 418:255-261;
	Keverne, E.B., (1983) "Pheromonal influences on the endocrine regulation of reproduction", <u>Trends Neurosci.</u> 6:381-384;
	Kevetter, G.A. and Winans, S.S., (1981) "Connections of the corticomedial amygdala in the golden hamster. I. Efferents of the 'Vomeronasal Amygdala", <u>J. Comp. Neurol.</u> 197:81-98;
	Krettek, J.E. and Price, J.L., (1977) "Projections from the amygdaloid complex to the cerebral cortex and thalamus in the rat and cat", <u>J. Comp. Neurol.</u> 172:687-722;
	Krettek, J.E. and Price, J.L., (1978) "Amygdaloid projections to subcortical structures within the basal forebrain and brainstem in the rat and cat", <u>J. Comp. Neurol.</u> 178:225-253;
	Lancet, D., et al., (1982) "Mapping of odor-related neuronal activity in the olfactory bulb by high resolution 2-deoxyglucose autoradiography", <u>Proc. Natl. Acad. Sci.</u> 79:670-674;
	Lomas, D.E. and Keverne, E.B., (1982) "Role of the vomeronasal organ and prolactin on the acceleration of puberty in female mice", <u>J. Reprod. Fertil.</u> 66: 101-107;
	Ludwig, J., et al., (1990) "Primary structure of a cAMP-gated channel from bovine olfactory epithelium", <u>FEBS Lett.</u> 270:24-29;
	Macrides, F., et al., (1985) "Evidence for morphologically, neurochemically and functionally heterogeneous classes of mitral and tufted cells in the olfactory bulb", <u>Chemical Senses</u> 10:175-202;
	Melrose, D.R., et al., (1971) "Androgen steroids associated with boar odour as an aid to the detection of oestrus in pig artificial insemination", <u>Brit. Vet. J.</u> 127:497-502;
↓	Meredith, M., (1986) "Vomeronasal organ removal before sexual experience impairs male hamster mating behavior", <u>Physiol. Behav.</u> 36: 737-743;
MP	Meredith, M. and Fernandez-Fewell, G., (1994) "Vomeronasal system, LHRH, and sex behavior", <u>Psychoneuroendocrinology</u> , 19: 657-672;

EXAMINER MICHAEL PARK	DATE CONSIDERED
--------------------------	-----------------

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449
(REV. 8-83)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEINFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

Atty. Docket No. 57548557-A/JPW/ADM	U.S. Serial No. Not Yet Known 09189P, 416
Applicant: Catherine Dulac and Richard Axel	
Filing Date Herewith	Group Art Unit 1646

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

✓	Michael, R.P. and Keverne, E.B., (1968) "Pheromones in the communication of sexual status in primates", <u>Nature</u> 218:746-749;
↑	Monti-Bloch L., et al., (1994) "The human vomeronasal system", <u>Psychoneuroendocrinology</u> 19:673-686;
	Moran, D.T., et al., (1991) "The vomeronasal (Jacobson's) organ in man: ultrastructure and frequency of occurrence", <u>J. Steroid Biochem. Molec. Biol.</u> 39:545-552;
	Mori, K., et al., (1992) "Differential specificities of single mitral cells in rabbit olfactory bulb for a homologous series of fatty acid odor molecules", <u>J. Neurophysiol.</u> 67:786-789;
	Ngai, J., et al., (1993) "Coding of olfactory information: topography of odorant receptor expression in the catfish olfactory epithelium", <u>Cell</u> 72:667-680;
	Parmentier, M., et al., (1992) "Expression of members of the putative olfactory receptor gene family in mammalian germ cells", <u>Nature</u> 355:453-455
	Potiquet, M., (1891) "Le canal de Jacobson", <u>Rev. Laryng.</u> (Paris) 2:737-753;
	Probst, W.C., et al., (1992) "Sequence alignment of the G-Protein coupled receptor superfamily", <u>DNA and Cell Biology</u> Vol. II(1) (Mary Liebert, Inc. Pubs., NY) pp. 1-20
	Ressler, K.J., et al., (1993) "A zonal organization of odorant receptor gene expression in the olfactory epithelium", <u>Cell</u> 73: 597-609;
	Ressler, K.J., et al., (1994) "Information coding in the olfactory system: Evidence for a stereotyped and highly organized epitope map in the olfactory bulb", <u>Cell</u> 79:1245-1255;
	Reynolds, J. and Keverne, E.B., (1979) "The accessory olfactory system and its role in the phermonally mediated suppression of oestrus in grouped mice", <u>J. Reprod. Fert.</u> 57:31-35;
	Rogers, R.E., et al., (1987) "Molecular cloning and sequencing of a cDNA for olfactory marker protein", <u>Proc. Natl. Acad. Sci.</u> 84:1704-1708;
	Ryba, N.J.P. and Tirindelli, R. (1997) A new multigene family of putative pheromone receptors. <u>Neuron</u> 19: 371-379.
	Sambrook, J., Fritsch, E.F. and Maniatis, T., (1989) Molecular Cloning; A laboratory Manual Second Edition Cold Spring Harbor, New York, (Cold Spring Harbor Laboratory Press);
✓	Scangos, G. and Bieberich, C., (1987) "Gene transfer into mice", <u>Advances in Genetics</u> 24:285-321;
✓	Shepard, G., (1994) "Discrimination of molecular signals by the olfactory receptor neuron", <u>Neuron</u> 13:771-790;

EXAMINER <u>MICHAEL PAUL</u>	DATE CONSIDERED <u>11/14/93</u>
---------------------------------	------------------------------------

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (REV. 8-83)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		Atty. Docket No. 575/48557-A/JPW/ADM	U.S. Serial No. Not Yet Known
		INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		Applicant: Catherine Dulac and Richard Axel	09/898,416
				Filing Date Herewith	Group Art Unit 1646
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)					
MOP	Stensaas, L.J., et al., (1991) "Ultrastructure of the human vomeronasal organ", <u>J. Steroid Biochem. Molec. Biol.</u> 39:553-560;				
✓	Stewart, W.B., et al., (1979) "Functional organization of rat olfactory bulb analyzed by the 2-deoxyglucose method", <u>J. Comp. Neurol.</u> 185:715-734;				
	Strader, C.D., et al., (1994) "Structure and function of G protein-coupled receptors", <u>Annu. Rev. Biochem.</u> 63:101-132;				
	Takami, S. and Graziadie, P.P., (1991) "Light microscopic Golgi study of mitral/tufted cells in the accessory olfactory bulb of the adult rat", <u>J. Comp. Neurol.</u> 311:65-83;				
	Troemel, E., et al., (1995) "Divergent seven transmembrane receptors are candidate chemosensory receptors in <u>C. Elegans</u> ", <u>Cell</u> 83:207-218;				
	Vassar, R., et al., (1993) "Spatial segregation of odorant receptor expression in the mammalian olfactory epithelium", <u>Cell</u> 74:309-318;				
	Vassar, R., et al., (1994) "Topographic organization of sensory projections to the olfactory bulb", <u>Cell</u> 79:981-991;				
	Watson et al. (1994) The G-Protein Linked Receptor Facts Book. Academic Press, Inc., San Diego, CA, pp. 223-230;				
✓	Wang et al. (1989) COUP transcription factor is a member of the steroid receptor superfamily. <u>Nature</u> 340: 163-166; and				
MOP	Wysocki, C.J. and Lepri, J.J., (1991) "Consequences of Removing the Vomeronasal Organ", <u>J. Steroid Biochem. Molec. Biol.</u> 39:661-669.				
EXAMINER <u>MICHAEL PAUL</u>	DATE CONSIDERED <u>11/14/03</u>				
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					



RECEIVED

FEB 04 2002

TECH CENTER 1600/2900

Page NO. B

Page 1 of 1

U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 48557-A/JPW/ADM	Serial No. 09/898,416
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)			
Applicant: Catherine Dulac and Richard Axel		Filing Date: July 3, 2001	Group Art Unit 1646

INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

MOP	Watson, J. et al. (1993) "Differential cDNA Screening Strategies to Identify Novel Stage-Specific Proteins in the Developing Mammalian Brain," <u>Dev. Neurosci.</u> 15: 77-86;
MOP	Zhang, L. et al., (1992) "Whole genome amplification from a single cell: Implications for genetic analysis," <u>Proc. Natl. Acad. Sci. USA</u> 89: 5847-5851.

EXAMINER MICHAEL PAGE DATE CONSIDERED 11/14/03

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicants: Catherine Dulac and Richard Axel
U.S. Serial No.: 09/898,416
Filed: July 3, 2001
Exhibit A